Jun Lu

List of Publications by Year
in descending order

128	21,335	71061 41	14736 127
papers	citations	h-index	g-index

129	129	129	16319
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Twoâ€Ðimensional Nanocrystals Produced by Exfoliation of Ti₃AlC₂. Advanced Materials, 2011, 23, 4248-4253.	11.1	7,931
2	Two-Dimensional Transition Metal Carbides. ACS Nano, 2012, 6, 1322-1331.	7.3	3,453
3	New Two-Dimensional Niobium and Vanadium Carbides as Promising Materials for Li-Ion Batteries. Journal of the American Chemical Society, 2013, 135, 15966-15969.	6.6	1,609
4	Two-Dimensional, Ordered, Double Transition Metals Carbides (MXenes). ACS Nano, 2015, 9, 9507-9516.	7.3	1,395
5	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	3.2	1,173
6	A general Lewis acidic etching route for preparing MXenes with enhanced electrochemical performance in non-aqueous electrolyte. Nature Materials, 2020, 19, 894-899.	13.3	870
7	Synthesis of two-dimensional molybdenum carbide, Mo 2 C, from the gallium based atomic laminate Mo 2 Ga 2 C. Scripta Materialia, 2015, 108, 147-150.	2.6	329
8	Photoelectrochemical Study of Nitrogen-Doped Titanium Dioxide for Water Oxidation. Journal of Physical Chemistry B, 2004, 108, 5995-6003.	1.2	290
9	Self-Supported Three-Dimensional Nanoelectrodes for Microbattery Applications. Nano Letters, 2009, 9, 3230-3233.	4.5	226
10	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. Journal of Applied Physics, 2015, 118, .	1.1	217
11	Mo2TiAlC2: A new ordered layered ternary carbide. Scripta Materialia, 2015, 101, 5-7.	2.6	153
12	Fabrication of High-Aspect-Ratio Prussian Blue Nanotubes Using a Porous Alumina Template. Nano Letters, 2005, 5, 1603-1606.	4.5	119
13	Synthesis, structural characterization and photocatalytic application of ZnO@ZnS coreâ€“shell nanoparticles. RSC Advances, 2014, 4, 36940-36950.	1.7	117
14	Structure, Composition, and Morphology of Photoelectrochemically Active TiO2-xNxThin Films Deposited by Reactive DC Magnetron Sputtering. Journal of Physical Chemistry B, 2004, 108, 20193-20198.	1.2	113
15	Crystallization characteristics and chemical bonding properties of nickel carbide thin film nanocomposites. Journal of Physics Condensed Matter, 2014, 26, 415501.	0.7	104
16	Metal versus rare-gas ion irradiation during Ti1âˆ’xAlxN film growth by hybrid high power pulsed magnetron/dc magnetron co-sputtering using synchronized pulsed substrate bias. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	98
17	Growth of SnO2 thin films by atomic layer deposition and chemical vapour deposition: A comparative study. Thin Solid Films, 2006, 514, 63-68.	0.8	94
18	On the Topotactic Transformation of <scp><scp>Ti₂AlC</scp></scp> into a <scp><scp>Tiâ€“Câ€“Oâ€“F</scp></scp> Cubic Phase by Heating in Molten Lithium Fluoride in Air. Journal of the American Ceramic Society, 2011, 94, 4556-4561.	1.9	91

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19	Anomalously high thermoelectric power factor in epitaxial ScN thin films. Applied Physics Letters, 2011, 99, .	1.5	84
20	Atomic layer deposition of hafnium dioxide thin films from hafnium tetrakis(dimethylamide) and water. Thin Solid Films, 2005, 491, 328-338.	0.8	76
21	Photoelectrochemical study of sputtered nitrogen-doped titanium dioxide thin films in aqueous electrolyte. Solar Energy Materials and Solar Cells, 2004, 84, 145-157.	3.0	74
22	Discovery of the Ternary Nanolaminated Compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Nb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>GeC</mml:mi></mml:math>by a Systematic Theoretical-Experimental Approach. Physical Review Letters, 2012, 109, 035502.	2.9	73
23	Structure and bonding in amorphous iron carbide thin films. Journal of Physics Condensed Matter, 2015, 27, 045002.	0.7	71
24	Role of hydrogen for the elastic properties of alumina thin films. Applied Physics Letters, 2002, 80, 1144-1146.	1.5	68
25	Exploitation of atomic layer deposition for nanostructured materials. Materials Science and Engineering C, 2007, 27, 1504-1508.	3.8	67
26	Effect of selected atomic layer deposition parameters on the structure and dielectric properties of hafnium oxide films. Journal of Applied Physics, 2004, 96, 5298-5307.	1.1	64
27	Properties of hafnium oxide films grown by atomic layer deposition from hafnium tetraiodide and oxygen. Journal of Applied Physics, 2002, 92, 5698-5703.	1.1	63
28	Properties of HfO[sub 2] Thin Films Grown by ALD from Hafnium tetrakis(ethylmethylamide) and Water. Journal of the Electrochemical Society, 2004, 151, F189.	1.3	60
29	Structure of a new bulk Ti5Al2C3 MAX phase produced by the topotactic transformation of Ti2AlC. Journal of the European Ceramic Society, 2012, 32, 3485-3491.	2.8	58
30	Nanoscale piezoelectric response of ZnO nanowires measured using a nanoindentation technique. Physical Chemistry Chemical Physics, 2013, 15, 11113.	1.3	55
31	Synthesis and characterization of magnetic (Cr0.5Mn0.5)2GaC thin films. Journal of Materials Science, 2015, 50, 4495-4502.	1.7	55
32	Single nanowire-based UV photodetectors for fast switching. Nanoscale Research Letters, 2011, 6, 348.	3.1	54
33	Stability of 10B4C thin films under neutron radiation. Radiation Physics and Chemistry, 2015, 113, 14-19.	1.4	53
34	The Atomic Layer Deposition of HfO₂ and ZrO₂ using Advanced Metallocene Precursors and H₂O as the Oxygen Source. Chemical Vapor Deposition, 2008, 14, 358-365.	1.4	51
35	Surface-energy triggered phase formation and epitaxy in nanometer-thick Ni1âˆ’xPtx silicide films. Applied Physics Letters, 2010, 96, .	1.5	51
36	Superhard NbB2âˆ’ thin films deposited by dc magnetron sputtering. Surface and Coatings Technology, 2014, 257, 295-300.	2.2	50

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37	Synthesis of a new nanocrystalline titanium aluminum fluoride phase by reaction of Ti2AlC with hydrofluoric acid. RSC Advances, 2011, 1, 1493.	1.7	49
38	Generation of Oxide Nanopatterns by Combining Self-Assembly of S-Layer Proteins and Area-Selective Atomic Layer Deposition. Journal of the American Chemical Society, 2008, 130, 16908-16913.	6.6	47
39	Phase stability and initial low-temperature oxidation mechanism of Ti2AlC thin films. Journal of the European Ceramic Society, 2013, 33, 375-382.	2.8	45
40	Novel strategy for low-temperature, high-rate growth of dense, hard, and stress-free refractory ceramic thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	45
41	Epitaxial growth of TiO2 films in a hydroxyl-free atomic layer deposition process. Journal of Crystal Growth, 2002, 235, 293-299.	0.7	43
42	Characterization of magnetron sputtered Crâ€“B and Crâ€“Bâ€“C thin films for electrical contact applications. Surface and Coatings Technology, 2015, 266, 167-176.	2.2	40
43	Advanced cyclopentadienyl precursors for atomic layer deposition of ZrO2 thin films. Journal of Materials Chemistry, 2008, 18, 3385.	6.7	38
44	Electronic structure and chemical bonding of amorphous chromium carbide thin films. Journal of Physics Condensed Matter, 2012, 24, 225004.	0.7	38
45	HfO[sub 2] Films Grown by ALD Using Cyclopentadienyl-Type Precursors and H[sub 2]O or O[sub 3] as Oxygen Source. Journal of the Electrochemical Society, 2006, 153, F39.	1.3	37
46	SB-MOSFETs in UTB-SOI Featuring PtSi Source/Drain With Dopant Segregation. IEEE Electron Device Letters, 2008, 29, 125-127.	2.2	37
47	Phase transformations in face centered cubic (Al0.32Cr0.68)2O3 thin films. Surface and Coatings Technology, 2012, 206, 3216-3222.	2.2	37
48	An electron microscopy study of worn ceramic surfaces. Tribology International, 1993, 26, 369-381.	3.0	36
49	Engineering structure and properties of hafnium oxide films by atomic layer deposition temperature. Thin Solid Films, 2005, 479, 1-11.	0.8	36
50	Formation of one-dimensional MgH2 nano-structures by hydrogen induced disproportionation. Journal of Alloys and Compounds, 2006, 426, 357-362.	2.8	36
51	Cu diffusion in single-crystal and polycrystalline TiN barrier layers: A high-resolution experimental study supported by first-principles calculations. Journal of Applied Physics, 2015, 118, .	1.1	36
52	Direct current magnetron sputtered ZrB2 thin films on 4H-SiC(0001) and Si(100). Thin Solid Films, 2014, 550, 285-290.	0.8	35
53	Magnetron sputtered gadolinia-doped ceria diffusion barriers for metal-supported solid oxide fuel cells. Journal of Power Sources, 2014, 267, 452-458.	4.0	34
54	Atomic layer deposition of high capacitance density Ta2O5â€“ZrO2 based dielectrics for metalâ€“insulatorâ€“metal structures. Microelectronic Engineering, 2010, 87, 144-149.	1.1	33

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55	Stoichiometric, epitaxial ZrB2 thin films with low oxygen-content deposited by magnetron sputtering from a compound target: Effects of deposition temperature and sputtering power. Journal of Crystal Growth, 2015, 430, 55-62.	0.7	33
56	Atomic layer deposition of ZrO2 and HfO2 on deep trenched and planar silicon. Microelectronic Engineering, 2007, 84, 2010-2013.	1.1	32
57	Phase stability of Cr_{n+ 1}GaC_n MAX phases from first principles and Cr₂GaC thinâ€film synthesis using magnetron sputtering from elemental targets. Physica Status Solidi - Rapid Research Letters, 2013, 7, 971-974.	1.2	32
58	Comparative study of ZnO nanorods and thin films for chemical and biosensing applications and the development of ZnO nanorods based potentiometric strontium ion sensor. Applied Surface Science, 2013, 268, 37-43.	3.1	31
59	Mechanism of Formation of the Thermoelectric Layered Cobaltate Ca₃Co₄O₉ by Annealing of CaOâ€“CoO Thin Films. Advanced Electronic Materials, 2015, 1, 1400022.	2.6	31
60	TEM investigation of CVD graphite on nickel. Thin Solid Films, 1994, 252, 19-25.	0.8	30
61	Theoretical stability, thin film synthesis and transport properties of the Mo_{n +1}GaC_n MAX phase. Physica Status Solidi - Rapid Research Letters, 2015, 9, 197-201.	1.2	28
62	Atomic layer deposition of Ru films from bis(2,5-dimethylpyrrolyl)ruthenium and oxygen. Thin Solid Films, 2012, 520, 2756-2763.	0.8	27
63	A low valent metalorganic precursor for the growth of tungsten nitride thin films by atomic layer deposition. Journal of Materials Chemistry, 2007, 17, 1109.	6.7	26
64	Strontium Diffusion in Magnetron Sputtered Gadoliniaâ€Doped Ceria Thin Film Barrier Coatings for Solid Oxide Fuel Cells. Advanced Energy Materials, 2013, 3, 923-929.	10.2	25
65	Electrical and optical properties of sputter deposited tin doped indium oxide thin films with silver additive. Thin Solid Films, 2001, 392, 305-310.	0.8	24
66	Structure and morphology of Ru films grown by atomic layer deposition from 1-ethyl-1â€™-methyl-ruthenocene. Journal of Crystal Growth, 2010, 312, 2025-2032.	0.7	24
67	Magnetron sputtering of epitaxial Zr<scp>B</scp>₂ thin films on 4<scp>H</scp>â€<scp>S</scp>i<scp>C</scp>(0001) and Si(111). Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 636-640.	0.8	22
68	Electrically robust ultralong nanowires of NiSi, Ni2Si, and Ni31Si12. Applied Physics Letters, 2006, 88, 043104.	1.5	21
69	Engineering epitaxial Î³-Al2O3 gate dielectric films on 4H-SiC. Journal of Applied Physics, 2007, 102, 104112.	1.1	21
70	Performance Fluctuation of FinFETs With Schottky Barrier Source/Drain. IEEE Electron Device Letters, 2008, 29, 506-508.	2.2	21
71	Growth and Structure of ZnO Nanorods on a Sub-Micrometer Glass Pipette and Their Application as Intracellular Potentiometric Selective Ion Sensors. Materials, 2010, 3, 4657-4667.	1.3	21
72	Epitaxy of Ultrathin NiSi2 Films with Predetermined Thickness. Electrochemical and Solid-State Letters, 2011, 14, H268.	2.2	21

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73	Hafnium tetraiodide and oxygen as precursors for atomic layer deposition of hafnium oxide thin films. Thin Solid Films, 2002, 418, 69-72.	0.8	20
74	Atomic layer deposition of titanium dioxide nanostructures using carbon nanosheets as a template. Journal of Crystal Growth, 2009, 311, 373-377.	0.7	20
75	Phase-stabilization and substrate effects on nucleation and growth of (Ti,V)n+1GeCn thin films. Journal of Applied Physics, 2011, 110, .	1.1	20
76	Atomic Layer Deposition and Characterization of HfO[sub 2] Films on Noble Metal Film Substrates. Journal of the Electrochemical Society, 2005, 152, F75.	1.3	19
77	The reagent-free, microwave-assisted purification of carbon nanotubes. New Journal of Chemistry, 2010, 34, 2275.	1.4	19
78	Hybrid bioinorganic insulin amyloid fibrils. Chemical Communications, 2010, 46, 4157.	2.2	19
79	On Different Process Schemes for MOSFETs With a Controllable NiSi-Based Metallic Source/Drain. IEEE Transactions on Electron Devices, 2011, 58, 1898-1906.	1.6	19
80	Stabilization of wurtzite Sc0.4Al0.6N in pseudomorphic epitaxial Sc Al1â˜'N/In Al1â˜'N superlattices. Acta Materialia, 2015, 94, 101-110.	3.8	19
81	Carbide and nanocomposite thin films in the Tiâ€“Ptâ€“C system. Thin Solid Films, 2010, 518, 5104-5109.	0.8	18
82	Atomic layer deposition of ferromagnetic cobalt doped titanium oxide thin films. Thin Solid Films, 2011, 519, 3318-3324.	0.8	18
83	Surface-enhanced Raman scattering from analytes adsorbed on gold nanoparticles inside polymer beads. Journal of Raman Spectroscopy, 2004, 35, 826-834.	1.2	17
84	Investigation of ZrO[sub 2]â€“Gd[sub 2]O[sub 3] Based High-k Materials as Capacitor Dielectrics. Journal of the Electrochemical Society, 2010, 157, G202.	1.3	17
85	Control of crystallinity in sputtered Crâ€“Tiâ€“C films. Acta Materialia, 2013, 61, 6352-6361.	3.8	17
86	Optimization of an industrial DC magnetron sputtering process for graded composition solar thermal absorbing layer. Solar Energy Materials and Solar Cells, 2006, 90, 308-328.	3.0	16
87	Effect of preparation conditions on properties of atomic layer deposited TiO2 films in Moâ€“TiO2â€“Al stacks. Thin Solid Films, 2006, 510, 39-47.	0.8	16
88	Fully Depleted UTB and Trigate N-Channel MOSFETs Featuring Low-Temperature PtSi Schottky-Barrier Contacts With Dopant Segregation. IEEE Electron Device Letters, 2009, 30, 541-543.	2.2	16
89	Step-flow growth of nanolaminate Ti3SiC2 epitaxial layers on 4H-SiC(0 0 0 1). Scripta Materialia, 2011, 64, 1141-1144.	2.6	16
90	Chemical vapour deposition of Cu2O on MgO(100) from CuI and N2O: aspects of epitaxy. Journal of Crystal Growth, 1995, 151, 305-311.	0.7	15

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91	A novel self-aligned process for platinum silicide nanowires. Microelectronic Engineering, 2006, 83, 2107-2111.	1.1	15
92	Structural properties of epitaxial Î³-Al2O3 (111) thin films on 4H-SiC (0001). Applied Physics Letters, 2007, 90, 061916.	1.5	15
93	Decoration of ZnO Nanorods with Coral Reefs like NiO Nanostructures by the Hydrothermal Growth Method and Their Luminescence Study. Materials, 2014, 7, 430-440.	1.3	15
94	Outâ€Ofâ€Plane Ordered Laminate Borides and Their 2D Tiâ€Based Derivative from Chemical Exfoliation. Advanced Materials, 2021, 33, e2008361.	11.1	14
95	Size-Distribution and Emission Spectroscopy of W Nanoparticles Generated by Laser-Assisted CVD for Different WF6/H2/Ar Mixtures. Journal of Physical Chemistry B, 2003, 107, 11615-11621.	1.2	13
96	Precursor-dependent structural and electrical characteristics of atomic layer deposited films: Case study on titanium oxide. Materials Science in Semiconductor Processing, 2006, 9, 1084-1089.	1.9	12
97	The effect of aluminum oxide incorporation on the material and electrical properties of hafnium oxide on Ge. Applied Physics Letters, 2008, 93, .	1.5	12
98	On Epitaxy of Ultrathin Ni[sub 1â^'x]Pt[sub x] Silicide Films on Si(001). Electrochemical and Solid-State Letters, 2010, 13, H360.	2.2	12
99	High-temperature stability of Î±-Ta4AlC3. Materials Research Bulletin, 2011, 46, 1088-1091.	2.7	12
100	Comment on â€œ<scp><scp>Ti</scp></scp>₅<scp><scp>Al</scp></scp>₂<scp><scp>C</scp></scp>₃: A New Ternary Carbide Belonging to <scp>MAX</scp> Phases in the <scp><scp>Ti</scp></scp>â€“<scp><scp>Al</scp></scp>â€“<scp><scp>C</scp></scp> Systemâ€. Journal of the American Ceramic Society, 2012, 95, 3352-3354.	1.9	12
101	High boron incorporation in selective epitaxial growth of SiGe layers. Journal of Materials Science: Materials in Electronics, 2007, 18, 747-751.	1.1	11
102	Template-based multiwalled TiO2/iron oxides nanotubes: Structure and magnetic properties. Journal of Applied Physics, 2009, 106, 084313.	1.1	11
103	Beam-induced crystallization of amorphous Meâ€“Siâ€“C (Me = Nb or Zr) thin films during transmission electron microscopy. MRS Communications, 2013, 3, 151-155.	0.8	11
104	C49/C54 phase transformation during chemical vapor deposition of TiSi2. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 161-168.	0.9	10
105	Deposition of Epitaxial Titanium Carbide Films on MgO(001) and 6Hâ€“SiC(0001) by Coevaporation of Ti and C60. Journal of Materials Research, 1999, 14, 1589-1596.	1.2	10
106	Thermal Stability and Dopant Segregation for Schottky Diodes With Ultrathin Epitaxial $hbox{NiSi}_{2 - y}$. IEEE Electron Device Letters, 2011, 32, 1029-1031.	2.2	10
107	Holmium and titanium oxide nanolaminates by atomic layer deposition. Thin Solid Films, 2014, 565, 165-171.	0.8	10
108	Synthesis and characterization of Zr2Al3C4 thin films. Thin Solid Films, 2015, 595, 142-147.	0.8	10

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109	Morphology effects on exchange anisotropy in Coâ€“CoO nanocomposite films. Thin Solid Films, 2015, 576, 11-18.	0.8	10
110	Epitaxy of copper on Î±-Al2O3(001) by atomic layer deposition. Journal of Crystal Growth, 2005, 276, 102-110.	0.7	9
111	Metallic Ir, IrO₂ and Pt Nanotubes and Fibers by Electrospinning and Atomic Layer Deposition. Nanoscience and Nanotechnology Letters, 2009, 1, 218-223.	0.4	9
112	Thermal stability and mechanical properties of amorphous coatings in the Ti-B-Si-Al-N system grown by cathodic arc evaporation from TiB2, Ti33Al67, and Ti85Si15 cathodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	9
113	Model for electron-beam-induced crystallization of amorphous Meâ€“Siâ€“C (Me = Nb or Zr) thin films. Journal of Materials Research, 2014, 29, 2854-2862.	1.2	8
114	Atomic layer deposition of Zr<scp>O</scp>₂ for grapheneâ€based multilayer structures: In situ and ex situ characterization of growth process. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 397-402.	0.8	8
115	Deposition of transition metal carbide superlattices using C60 as a carbon source. Applied Physics Letters, 1998, 73, 2754-2756.	1.5	7
116	Crystallization of NiSi_x in a Body-Centered Cubic Structure during Solid-State Reaction between an Ultrathin Ni Film and Si(001) Substrate at 150â€“350 Â°C. Crystal Growth and Design, 2013, 13, 1801-1806.	1.4	7
117	Well aligned ZnO nanorods growth on the gold coated glass substrate by aqueous chemical growth method using seed layer of Fe3O4 and Co3O4 nanoparticles. Journal of Crystal Growth, 2013, 368, 39-46.	0.7	7
118	Reactive sputtering of Î´-ZrH2 thin films by high power impulse magnetron sputtering and direct current magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	7
119	Novel hard, tough HfAlSiN multilayers, defined by alternating Si bond structure, deposited using modulated high-flux, low-energy ion irradiation of the growing film. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	7
120	TEM investigation of halide CVD grown Bi2Sr2CaCu2O8 + x films. Journal of Alloys and Compounds, 1997, 251, 134-137.	2.8	6
121	Atomic layer deposition of high-k dielectrics on carbon nanoparticles. Thin Solid Films, 2013, 538, 16-20.	0.8	5
122	Structural and Morphological Properties of Ultrathin HfO₂ Dielectrics on 4H-SiC (0001). Materials Science Forum, 2006, 527-529, 1075-1078.	0.3	4
123	Epitaxial growth of Î³-Al2O3 on Ti2AlC(0001) by reactive high-power impulse magnetron sputtering. AIP Advances, 2014, 4, 017138.	0.6	4
124	Epitaxial Colossal Magnetoresistive/Ferroelectric Heterostructures on Si. Integrated Ferroelectrics, 2004, 67, 69-76.	0.3	3
125	Cathodoluminescence characterization of ZnO nanorods synthesized by chemical solution and of its conversion to ellipsoidal morphology. Journal of Materials Research, 2014, 29, 2425-2431.	1.2	3
126	Investigation of TiW Contacts to 4H-SiC Bipolar Junction Devices. Materials Science Forum, 2006, 527-529, 887-890.	0.3	2

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127	Deposition of Ti-Si-C-Ag Nanocomposite Coatings as Electrical Contact Material. , 2010, , .		1
128	Atomic Layer Deposition of Ruthenium Films on Strontium Titanate. Journal of Nanoscience and Nanotechnology, 2011, 11, 8378-8382.	0.9	1